

**ARIZONA GAME AND FISH DEPARTMENT
HABITAT PARTNERSHIP PROGRAM
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**

PROJECT INFORMATION

Project Title: Twin Buttes Tank		Project No. 10-602
Region/GMU: Region 6/ GMU 23 South	HPC: Payson Natural Resource Committee	
Project Type: New Water Catchment		
<p>Project Description: This project is part of a 5-year habitat plan for Game Management Unit (GMU) 23 South relating to forage and water conditions. The project has already completed the construction of 3 new water catchments in Upper Sonoran desert and 1 in semi-desert grassland habitat types. The project is based on a landscape study done by the wildlife manager, determining areas that are absent of reliable water sources in two-mile radiuses from other reliable water sources. Based on research in Arizona, desert mule deer have a home range of approximately 2 miles or less. This project would provide water for wildlife in areas where there are no reliable sources for 2 miles or more. This proposal is a continuance of the 2nd half of this project that was funded in 2007. Both NEPA and archeological survey are complete.</p>		
Wildlife Species to Benefit: Mule deer , Javelina		
Possible Funding Partners:		
Implementation Schedule: Beginning: 2011 Completed: 2012	NEPA Compliance: (if applicable) Completed: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Projected Completion Date:	

PROJECT FUNDING

SBG Funds Requested: \$ 48,080.00
Cost Share Funds: \$ 13,860.00
Total Project Costs: \$ 61,940.00

PARTICIPANT INFORMATION

Applicant: Jarrod McFarlin, Wildlife Manager (please print) Telephone: 928-479-2150	Address: 7200 E. University Mesa, AZ 85207
AGFD Contact and Phone No. (If applicant is not AGFD personnel)	
Coordinated with: Heidi Plank, Tonto Basin Ranger District, Joe Currie, AZ Game & Fish Development Branch	Date: 2006, 2007, 2009, 2010
Applicant's signature:	Date:

SEND COMPLETED APPLICATIONS TO:
Game Branch
AZ Game and Fish Dept.

**5000 W. Carefree Highway
Phoenix, AZ 85086**

WAS PROJECT PRESENTED TO THE LOCAL HPC? YES X NO

HAS PROJECT BEEN SUBMITTED IN PREVIOUS YEARS? IF SO WAS IT FUNDED?

Yes, this project was funded with several other catchments on the same proposal but was missed in the funding cycle in 2007. It was resubmitted in 08, 09 and 10.

NEED STATEMENT/PROBLEM ANALYSIS: The need for reliable forage and water in GMU 23 South has become a concern for the wildlife managers in that unit. This project deals specifically with water needs in the Upper Sonoran desert of GMU 23 South but is part of the overall long-term habitat needs that will improve deer habitat and sustain a viable to growing population. There have already been several juniper treatments done, 3 new catchments built and spring redevelopments and tank clean out/sealant projects done to improve wildlife habitat. The wildlife manager in unit 23 South has been cooperatively working with the Tonto Basin Ranger District and the Pleasant Valley Ranger District on landscape burn planning in both districts that will bring the normal cycle of fire back to much of the forest. We are submitting two new burn projects for funding in unit 23 for 2008 through the pleasant valley ranger district. GMU 23 South used to sustain a much larger deer population as recent as 10 years ago. Part of the problem with the depressed population that currently exists is water availability.

Hoffmeister (1986) states that, home ranges of deer vary, depending on the available food and cover. Swank (1958) found that home ranges varied from one to two-and-a-quarter miles, with the bucks having an average home range of about two miles and the does slightly smaller. For deer in the chaparral south of the Gila River, Hanson and McCulloch (1957:586) give a "home range about 2 miles in diameter, a daily cruising radius of about 1 mile and seem not to travel on the average more than 1 ½ miles to water.". In regard to javelina Hoffmeister (1986) also states that, "summer territories for 20 herds on the Three Bar Wildlife Area averaged 704 acres; winter territories for six herds in the Tortolita Mountains averaged 773 acres...Bigler (1974) gives the minimum home range for 11 herds as 1.81 (1.03-3.12) square miles". After conducting a landscape analysis of the lower desert country in GMU 23 South, I identified 4 locations that do not have reliable water sources (defined later) within a 2-mile diameter

PROJECT OBJECTIVES: This project will provide a reliable water sources to wildlife in and area of GMU 23 South that is dry, but is otherwise considered good deer and javelina habitat. As part of the landscape analysis for defining reliable water, I used a list of criteria. The criteria for reliable waters are those waters that are perennial, not ephemeral or seasonal, not stock tanks or windmills or ephemeral springs. A spring that has water in the winter months but not the summer months, for example is ephemeral and not reliable to wildlife during the critical summer fawning months. Another example of an ephemeral water is a stock tank that goes dry during certain times of the year, or a windmill that only operates when cattle are in that particular pasture.

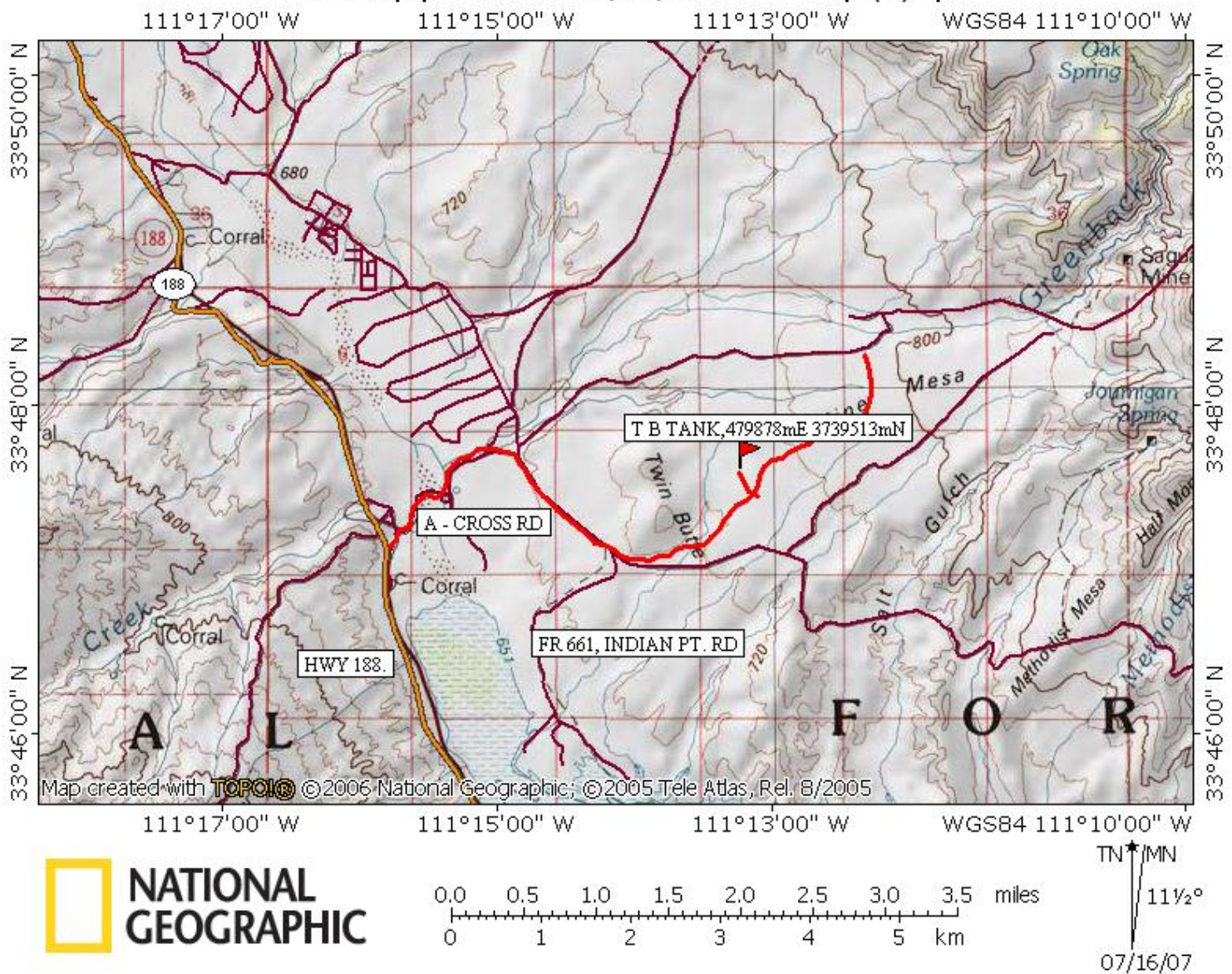
PROJECT STRATEGIES: To build four water catchments with a capacity of 10,000 gallons each over the next 2 years. Three have been completed already. Possible funding partners will need to supply a contractor(s) to build the catchments to Arizona Game & Fish Department specifications as the Departments Development Branch is currently not committing to any new catchments due to work-load issues.

(revised 7-20-2009)

This project is NEPA ready. The EAC is complete. Archeological Clearances and Categorical Exclusions have been completed by the Forest Service.

PROJECT LOCATION: This project is located in the Tonto Basin Ranger District near Roosevelt Lake, just north of the A Cross Road. See attached map.

TOPO! map printed on 07/16/07 from "Map (2).tpo"



LAND OWNERSHIP AT PROJECT SITE (Please state specifically if PRIVATE PROPERTY and provide landowner's name):) : United States Forest Service, Tonto Basin Ranger District.

IF PRIVATE PROPERTY, IS THERE A STEWARDSHIP AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?N/A

HABITAT DESCRIPTION: Upper Sonoran lowland desert with mixed desert scrub such as mesquite, jojoba, lycium and graythorn. The location is in the desert flats with much prickly pear and Cholla cactus present. The elevation is about 2500 feet.

ITEMIZED USE OF FUNDS: Twin Buttes Tank

COOPERATOR AND PROJECT COMPONENT	COST-SHARE DOLLARS AVAILABLE	SBG FUNDS REQUESTED
Arizona Game & Fish Department (SBG Funds) ■ Funding for implementation of on-the-ground work		\$48,080.00
Arizona Game & Fish Department ■ In kind labor to write proposal, coordinate project, completion report. Calculated as XXX days @ \$xxx/day. ■ Development Branch funding towards contractor costs.	\$1860.00 \$10,000.00	
USDA – Tonto Nat'l Forest, Tonto Basin Ranger District ■ Provided administrative support including labor/funding to produce NEPA and Archeological clearances.	\$2,000.00	
TOTALS:	\$13,860.00	\$48,080.00
RATIO OF COST SHARE:SBG FUNDS .29:1		
TOTAL PROJECT COST = \$61,940.00		

Anticipated Costs are:

2 -18 foot ring tanks @	\$19,835
Walk-in drinker @	\$3265
Gutter @	\$730

24' X 72' Apron Package @	\$5000
Pipe Rail Fence @	\$2500
Misc. Plumbing and Concrete @	\$1000
Steel Tubing for Apron Structure @	\$ 750

<u>Materials Total:</u>	<u>\$33,080</u>
<u>Cost For Contractor To Build:</u>	<u>\$25,000</u>

<u>AGFD Development Branch Cost Share</u>	<u>\$10,000</u>	
TOTAL GRANT FUNDS REQUESTED:		\$48,080

<u>AGFD in-kind labor:</u>	<u>\$1,860</u>
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<u>USDA Forest Service, T.N.F –NEPA</u>	
<u>and Archeological Clearances :</u>	<u>\$2,000</u>

<u>Total Costs:</u>	<u>\$61,940</u>
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LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION: Arizona Game & Fish Department: In-kind labor writing proposal, coordinate & engineer projects, completion report, site visits and maintenance after completion. The Arizona Game & Fish Department Development Branch cannot commit to building new catchments at this time, but will assist in the design and contribute \$10,000 towards contractor costs.

USDA T.N.F, Tonto Basin Ranger District: NEPA and Archeological Clearances.

Non-Profit Organization (possible funding partners): Will supply funding and contracting of construction of the catchment using Arizona Game & Fish Department design specifications.

PROJECT MONITORING PLAN: No monitoring will be required other than regular water level checks and maintenance, to be conducted by the Department. Monitoring and maintenance are funded through the Federal Aid Wildlife Restoration monies administered by the Development Branch

PROJECT MAINTENANCE: This tank should not require much maintenance other than checking the water level, checking for water leaks and cleaning out debris from the trough when necessary.

PROJECT COMPLETION REPORT TO BE FILED BY: Project Author

WATER DEVELOPMENT PROJECTS (see attached worksheet):

TREE SHEARING (AGRA-AXE, PUSH) PROJECTS (see attached worksheet):

ARIZONA GAME AND FISH DEPARTMENT **WATER DEVELOPMENT WORKSHEET**

PROJECT NAME: Twin Buttes Catchment

- 1) **Is the water development listed as a priority in the most recent “Wildlife Water Development Annual Implementation Schedule?”** Yes
- 2) **Please list the Development Branch personnel and date coordinated with for this project.** Joseph Currie, 2006,2009,2010
- 3) **What is the estimated annual inches of precipitation for the area? (mark one)**
 2-4 4-6 6-8 8-10 X 10-12 12-14 14-16 >16
- 4) **Is there a perennial water source available to big game within four miles of this project?**
 X YES (please complete #5 below) NO (skip #5 below)
- 5) **For the accessible, perennial water source nearest this project:**
Name of water source: Roosevelt Lake
Type of water source (catchment, spring, dirt tank, etc.): Lake
Ownership of water source: USFS, Tonto Basin Ranger District
Distance in miles from project: about 3, depending on level of the lake
- 6) **Is the target wildlife species a result of transplant efforts?** YES X NO
- 7) **Please list any special land management status for the project site (i.e. Wilderness, National Park, National Monument, etc). If private land, list landowner.**
- 8) **Please provide the following information about access to the proposed site:**
Type of access (mark one): X 2x4 vehicles 4x4 only foot only**
**If foot access only: Distance in miles: Approx. hiking time:

-- Does access to this site require crossing private or tribal lands? YES X NO

-- Please describe any restrictions to public access:

9) **Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.**
 2 -18 foot ring tanks @ \$19,835
 Walk-in drinker @ \$3265
 Gutter @ \$730
 Apron Package @ \$5000
 Pipe Rail Fence @ \$ 2500
 Misc. Plumbing and Concrete @ \$1000

Steel Tubing for Apron Structure @ \$750

Total Materials Cost: \$33,080

10) Was a site visit completed? ☒ Yes ☐ No

If Yes, please list personnel that attended and date.

Joe Currie, James Simmons in 2006